

Additional file 1. Indications for and added clinical value of clinician-initiated peripheral blood smear reviews among three institutions

Indication	Total (n=515)		Emory University Hospital (n=99)		Highland Hospital (n=216)		University of Minnesota Medical Center (n=200)	
	Smears for this indication (%)*	Smears with added clinical value (%)**	Smears for this indication (%)*	Smears with added clinical value (%)**	Smears for this indication (%)*	Smears with added clinical value (%)**	Smears for this indication (%)*	Smears with added clinical value (%)**
Any	515 (100%)	118 (23%)	99 (100%)	23 (23%)	216 (100%)	57 (26%)	200 (100%)	38 (19%)
Any RBC abnormality	259 (50%)	48 (19%)	43 (43%)	6 (14%)	109 (50%)	23 (21%)	107 (54%)	19 (18%)
Any WBC abnormality	126 (24%)	32 (25%)	24 (24%)	4 (17%)	63 (29%)	17 (27%)	39 (20%)	11 (28%)
Any PLT abnormality	150 (29%)	20 (13%)	47 (47%)	5 (11%)	54 (25%)	9 (17%)	49 (25%)	6 (12%)
Any cytosis	53 (10%)	18 (34%)	6 (6%)	2 (33%)	32 (15%)	12 (38%)	15 (8%)	4 (27%)
Erythrocytosis	2 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0.5%)	0 (0%)	1 (0.5%)	0 (0%)
Leukocytosis	42 (8%)	18 (43%)	3 (3%)	2 (67%)	29 (13%)	12 (41%)	10 (5%)	4 (40%)
Thrombocytosis	12 (2%)	1 (8%)	4 (4%)	1 (25%)	4 (2%)	0 (0%)	4 (2%)	0 (0%)
Any cytopenia	267 (52%)	45 (17%)	69 (70%)	7 (10%)	89 (41%)	19 (21%)	109 (55%)	19 (17%)
Anemia	179 (35%)	32 (18%)	40 (40%)	3 (8%)	64 (30%)	15 (23%)	75 (38%)	14 (19%)
Leukopenia	79 (15%)	11 (14%)	19 (19%)	0 (0%)	32 (15%)	5 (16%)	28 (14%)	6 (21%)
Thrombocytopenia	135 (26%)	18 (13%)	44 (44%)	4 (9%)	48 (22%)	8 (17%)	43 (22%)	6 (14%)
Any abnormal cell morphology	39 (8%)	9 (23%)	1 (1%)†	1 (100%)	26 (12%)	6 (23%)	12 (6%)	2 (17%)
RBC morphology	22 (4%)	4 (18%)	0 (0%)	0 (0%)	17 (8%)	3 (18%)	5 (3%)	1 (20%)
WBC morphology	6 (1%)	3 (50%)	0 (0%)	0 (0%)	4 (2%)	2 (50%)	2 (1%)	1 (50%)
PLT morphology	5 (1%)	1 (20%)	0 (0%)	0 (0%)	3 (1%)	1 (33%)	2 (1%)	0 (0%)
Hematolymphoid neoplasm	65 (13%)	30 (46%)	20 (20%)	10 (50%)	23 (11%)	12 (52%)	22 (11%)	8 (36%)
Blasts	5 (1%)	2 (40%)	0 (0%)	0 (0%)	5 (2%)	2 (40%)	0 (0%)	0 (0%)
Hemolysis	100 (19%)	24 (24%)	5 (5%)	5 (100%)	53 (25%)	12 (23%)	42 (21%)	7 (17%)
Parasites	4 (1%)	1 (25%)	0 (0%)	0 (0%)	2 (1%)	1 (50%)	2 (1%)	0 (0%)
Other	55 (11%)	15 (27%)	4 (4%)	0 (0%)	23 (11%)	11 (48%)	28 (14%)	4 (14%)
Not specified	33 (6%)	6 (18%)	0 (0%)	0 (0%)	28 (13%)	6 (21%)	5 (3%)	0 (0%)

*Percentages represent the proportion of peripheral smear reviews performed for a given indication, among all smear reviews at the specified institution(s). Many smear reviews were initiated for more than one indication. As a result, the sum of the percentages in these columns is greater than 100%.

**Percentages represent the proportion of smear reviews with added clinical value, among all smear reviews performed for this indication at the specified institution(s).

†This smear was requested to evaluate cell morphology; however, no specific lineage was specified.

RBC, red blood cell; WBC, white blood cell; PLT, platelet